

# ***APPENDIX G***

## **WATERSHED ANALYSIS FRAMEWORK**

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February 3, 1998

**PACIFIC LUMBER CO. HCP  
WATERSHED ANALYSIS -- PROPOSED FEDERAL FRAMEWORK**

The January 12-13, 1998 meetings in Scotia between Maxxam, Pacific Lumber Company, federal and state agencies, resulted in an offer by Maxxam to consider conducting watershed analysis according to the Washington State methodology as part of the aquatic portion of their habitat conservation plan (HCP). As part of the tentative offer, Maxxam and Pacific Lumber requested that the agencies provide a proposal for how the Washington State watershed analysis process may be applied to Pacific Lumber's HCP. The interagency, federal-state, aquatic technical team represented by the National Marine Fisheries Service, U.S. Fish and Wildlife Service, Environmental Protection Agency, California Department of Forestry and Fire Protection, California Department of Fish and Game, California Resources Agency, and the North Coast Regional Water Quality Control Board met on January 26-27, 1998 to discuss the watershed analysis process. Additional discussion took place between the agencies and Pacific Lumber on January 28 and between the interagency technical team on February 2-3. The following framework is proposed to Pacific Lumber on behalf of the federal agencies. The foundation of this framework is the Washington State process, with modifications based on the specifics of the Pacific Lumber HCP,

The federal agencies interest in a watershed analysis is to better inform the decision-making process with credible science; to use science based assessment methods to tailor prescriptions to specific watersheds and sites; to have a high level of confidence in the prescriptions generated for sensitive or vulnerable areas of the landscape; to use adaptive management to modify the HCP; and, for integration with other regulations, such as the California Forest Practice Rules and the Clean Water Act.

Watershed Delineation

1. The area analyzed should be watershed(s) of approximately 10,000 to 50,000 acres, as described by the agencies and Pacific Lumber, and approved by the agencies. These analysis areas may be similar to that of several planning watersheds or single hydrologic unit (as described by Pacific Lumber previously).
2. Watershed analysis will, ideally, be conducted across the entire ownership.

Process

3. The Washington State watershed analysis process will be used: assessment, synthesis (with a cumulative effects assessment), prescription development, monitoring and revisitation.

4. Entire watersheds (refer to #1) where Pacific Lumber owns all or portions of the land will be assessed. This will include a Level 1 assessment for all lands not owned by Pacific Lumber in the specified watersheds and a Level 2 assessment for lands owned by Pacific Lumber.
5. The assessment modules from the Washington State process will be used, in a modified format, for mass wasting, riparian function, fish habitat, stream channel assessment. The Pacific Watershed Associates (PWA) erosion analysis with additions for non-road related surface erosion may be used in place of the surface erosion module. Water quality “critical and key” questions may also be incorporated into the assessment.
  - The most current Washington State manual and modules will be used at the time of analysis as the basis for the Pacific Lumber process.
  - Key and critical questions will be customized to HCP covered species and Pacific Lumber’s ownership.
  - The agencies will modify the methodology and modules to the specifics of the Pacific Lumber HCP.
  - Variations on the methodology and modules can be recommended by Pacific Lumber. Variations will be approved by the agencies.
6. Integration of the watershed analysis modules with the PWA erosion process still needs development.
7. ~~The analysis must be performed by qualified individuals. An interdisciplinary scientific team hired by Pacific Lumber will conduct the assessment, synthesis, and develop prescriptions. Pacific Lumber is to be a participant in all stages of the process.~~
  - ~~Pacific Lumber will consult with the permitting agencies concerning the interdisciplinary structure of the scientific team, team composition, and selection criteria. The agencies will have approval authority over the structure of the team, selection criteria and the team members.~~
  - ~~Pacific Lumber will consult with the permitting agencies concerning the contracts and work plans of the scientific team. And, the approval of the agencies must be obtained before work plans or contracts can be executed.~~

*[Item #7 was modified as per agreement for the February 27, 1998 Pre-Permit Agreement in Principle]*

8. Federal and state agencies have the option to participate in the process at any stage.
9. The final determination to proceed with prescriptions, developed as a result of the watershed analysis, is retained by the permitting agencies.
10. A peer review will be conducted on a subset of completed analyses and prescriptions. The timeframe and details are still undetermined.
11. Timelines for completion of the process according to the Washington State methodology are not required. However, timelines for completion of the various phases of the analysis

for this HCP will be developed based on mutual agreement between the agencies and Pacific Lumber.

### Prescriptions

12. An interagency strategy, designed to achieve a properly functioning habitat condition (a.k.a. essential habitat functions), will be used as the “interim” (default) prescriptions in all areas where watershed analysis is not complete or there is dispute over the outcome of the watershed analysis process. The interagency strategies are currently presented in May 23, 1997, August 20, 1997, and January 7, 1998 versions. The agencies are willing to work with Pacific Lumber to resolve issues of complexity, compliance and clarity on these versions.
13. Maximum and minimum sideboards for post-analysis prescriptions set forth the range in which prescriptions may be modified. If mutually agreed upon by the permitting agencies and Pacific Lumber, the sideboards can be modified. Post-analysis prescriptions must always be designed to achieve or maintain a properly functioning aquatic habitat condition (a.k.a. essential habitat elements).
  - Minimum Sideboards (prescriptions)
    - minimum 30' Restricted Harvest Band prescription on Class I watercourses
    - minimum 10' Restricted Harvest Band prescription on Class II watercourses
    - California Forest Practice Rules in effect at the time of prescription development apply to all other areas
      - for example, in the 1998 Forest Practice Rules the WLPZ can range from 75'- 150' on Class I watercourses and 50'- 100' on Class II watercourses; also refer to the silvicultural prescriptions in the WLPZ section 916 of the Forest Practice Rules

#### Maximum Sideboards (prescriptions)

##### Class I

- maximum 170' RMZ width on Class I watercourses, horizontal measurement
- 0'-30' see above minimum prescription
- 30'-170' maximum prescription as described for the Restricted Harvest Band (post-analysis prescriptions may range from the California Practice Rules to no harvest)

##### Class II

- maximum 130' RMZ width on Class II watercourses, horizontal measurements
- 0'- 10' see above minimum prescription

- 10'-130' maximum prescription as described for the Restricted Harvest Band (post-analysis prescriptions may range from the California Practice Rules to no harvest)

#### Hillslope Management

- mass wasting default prescriptions and interdisciplinary hillslope assessment team process

14. The minimum and maximum sideboards, stated above, will be integrated into the assessment, synthesis and prescription development.
15. Prescriptions developed as a result of watershed analysis can not be extrapolated to other watersheds.

#### Monitoring & Revisitation

16. Monitoring objectives and hypotheses will be derived from the watershed analysis for those areas where watershed analysis has been completed to assess effectiveness of prescriptions and trends in achieving a properly functioning aquatic habitat condition. The monitoring module from the Washington State manual can be used if desired by Pacific Lumber.
17. Where watershed analysis has not yet been completed, monitoring will also be required to assess the effectiveness of default prescriptions and trends in achieving a properly functioning aquatic habitat condition.
18. Completed watershed analyses will be reviewed at 5 year intervals for the purpose of determining whether prescriptions are adequate. This review includes, but is not limited to, determinations as to whether new science has developed that might influence prescriptions, the watersheds response to prescriptions already implemented (monitoring), and whether watershed conditions have changed. The result may include revision of the prescriptions or conducting additional analysis, if warranted (adaptive management).
19. The permitting agencies will work with Pacific Lumber to determine the details and extent of a watershed analysis review process.